



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/563,742

03/05/2007

Gerd Bumiller

U202US(PCT)

4136

20469 7590 10/01/2008  
KOHLER SCHMID MOEBUS  
RUPPMANNSTRASSE 27  
D-70565 STUTTGART,  
GERMANY

EXAMINER

GLENN, KIMBERLY E

ART UNIT

PAPER NUMBER

2817

MAIL DATE

DELIVERY MODE

10/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,742	<b>Applicant(s)</b> BUMILLER, GERD	
	<b>Examiner</b> KIMBERLY E. GLENN	<b>Art Unit</b> 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-12, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 13-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-12, 19 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Cern US Patent 6,975, 210.

Cern disclose an arrangement of an inductive coupler for power line communication. Cern disclose in figure 1 a diagram of the arrangement of an inductive coupler around a coaxial power cable. It shows an inductive coupler 100 having a magnetic core 105 ring) having an aperture 110 and a secondary winding 115 (coil), connected to a communications device 120 (transceiver unit). A coaxial cable 125, which may be a power cable, has a center conductor 130, a core insulation 135, and a shield (or neutral conductor) 140. A lead, i.e., a drain wire 145 (earth wire), connects shield 140 to ground 146. In the embodiment shown in FIG. 1, cable 125 passes through aperture 110 from left to right, and drain wire 145 passes through inductive coupler 100 from right to left.

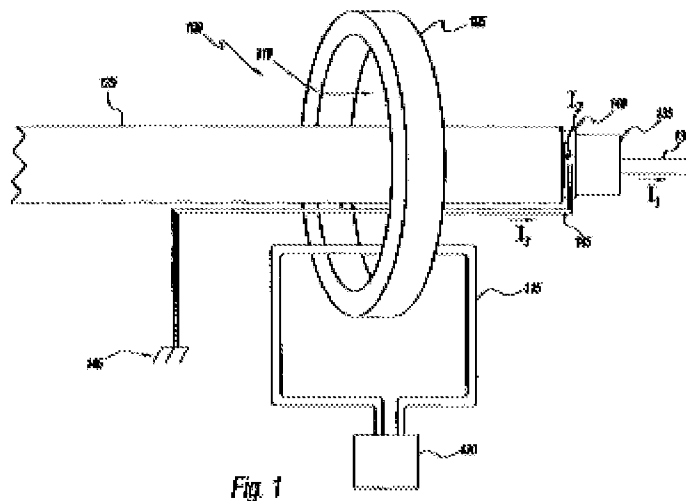
Ideally, a magnitude of signal current  $I_{sub.1}$  in center conductor 130 is equal to a magnitude of signal current  $I_{sub.2}$  in shield 140, which is, in turn, equal to a magnitude of signal current  $I_{sub.3}$  in drain wire 145. The net magnetomotive force in

Art Unit: 2817

inductive coupler 100 due to coaxial cable 125 and drain wire 145 is  $I_{\text{sub.1}}$  minus  $I_{\text{sub.2}}$  plus  $I_{\text{sub.3}}$ , which equals  $I_{\text{sub.1}}$ . This has the effect of electrically "peeling back" shield 140 and providing coupling between the signal current in the center conductor, i.e.,  $I_{\text{sub.1}}$ , and signal current in secondary winding 115, as well as to communications device 120.

Should center conductor 130 be energized at kilovolt potentials, then a high voltage termination device with a stress cone should be placed at each terminus of coaxial cable 125. FIG. 1 does not show such a termination, as the termination does not affect the operation or placement of inductive coupler 100.

The method steps to the above apparatus are inherent.



***Allowable Subject Matter***

Claims 13-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY E. GLENN whose telephone number is (571)272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly E Glenn  
Examiner  
Art Unit 2817

Application/Control Number: 10/563,742

Page 5

Art Unit: 2817

/K. E. G./

Examiner, Art Unit 2817

/Robert Pascal/

Supervisory Patent Examiner, Art Unit 2817